

## **ABSTRACT**

An optical element includes a substrate having at least one surface on which a layer of material is disposed, the layer of material being selected to be at least partially transmissive to radiation with a predetermined wavelength  $\lambda$ . The surface of material includes particles having a diameter in a range of 1-500 nm and the layer of material has a layer thickness in the range of 10-2000 nm. Undesired radiations, e.g. UV and DUV radiations, are substantially reduced or eliminated by scattering, e.g. Mie scattering and/or Raleigh scattering, and/or by absorption by the particles while desired radiations are transmitted to the surface of the optical element.